

Exhibit F

IN THE UNITED STATES DISTRICT COURT FOR THE
NORTHERN DISTRICT OF ILLINOIS
EASTERN DIVISION

JUNHONG LU, as Mother and Next
Friend of SHEN HAOCHEN, a minor,

Plaintiff,

v.

THE BOEING COMPANY, a corporation,

Defendant.

No. 13-cv-07418

Removed from
Circuit Court of Cook County,
County Department, Law Division
No. 2013 L 010404

**SUPPLEMENTAL DECLARATION OF ANNELIQUE BOWEN IN SUPPORT OF
THE BOEING COMPANY'S NOTICE OF REMOVAL**

I, Annelique Bowen, declare as follows:

Introduction

1. I am a Product Development Systems Integration Leader & Acting Senior Airplane Product Development Systems Leader Supervisor in the Systems Product Development group at The Boeing Company ("Boeing"). I have held that position since 2012. Before that, I was an Avionics Architect in the Product Development group for two years. I have worked at Boeing since 2000. Since 2003 I have had delegated authority from the Federal Aviation Administration ("FAA"), within the authorized area of Electrical Equipment,¹ to find or recommend the FAA find compliance with certain Federal Aviation Regulations.

2. I have reviewed Plaintiff's complaint in this action. I previously offered a declaration dated October 16, 2013 in support of Boeing's notice of removal. This supplemental declaration is offered in further support of Boeing's notice of removal. I base this declaration on my personal knowledge and on information collected by other Boeing employees. I am competent to testify to my statements in this declaration and would testify about my statements if called to do so.

¹ FAA Order 8110.37E, Appendix B, Chart C2 sets forth the Systems and Equipment (Electrical Equipment) functions and areas, and can be found at <http://www.faa.gov/documentLibrary/media/Order/8110.37E.pdf>.

FAA Delegation

3. From 2003 through 2006, I was a Designated Engineering Representative (“DER”) with delegated authority from the FAA, within the authorized area of Electrical Equipment, to find or recommend the FAA find compliance with certain Federal Aviation Regulations. Following a restructuring of the FAA delegation system, from 2004 to the present I have retained the same delegated authority as an Authorized Representative (“AR”). During the transition period of 2004 to 2006, I had delegated authority as a DER and an AR.

4. From 2004 to 2009, the FAA expressly delegated to Boeing certain types of authority relating to certification of aircraft through the Delegation Option Authorization (“DOA”) program. FAA Order 8100.9A describes the FAA’s delegation of authority under the DOA program.² Under Order 8100.9A, the FAA authorized Boeing to act as its representative in performing delegated functions, including type, production, and airworthiness certification functions. In performing its obligations as a DOA authorization holder, Boeing agreed “to exercise the same care, diligence, judgment, and responsibility when performing the delegated functions as would be exercised by the FAA.” Boeing was required “employ an authorization holder administrator(s)” and to “ensure that the administrator and ARs act in an independent and impartial manner when exercising their FAA authority.”³

5. The DOA program was phased out by the FAA, and beginning in 2009, the FAA expressly delegated to Boeing certain types of authority relating to certification of aircraft through the Organization Designation Authorization (“ODA”) program. FAA Order 8100.15A describes the FAA’s delegation of authority under the ODA program.⁴ Under Order 8100.15A, the FAA authorized Boeing to act as its representative in performing delegated functions, including type, production, and airworthiness certification functions. Boeing is an “ODA

² FAA Order 8100.9A can be found at <http://www.faa.gov/documentLibrary/media/Order/Order%208100.9A.pdf>,

³ FAA Order 8100.9A at 5-2, 5-3, and 5-4.

⁴ FAA Order 8100.15A can be found at <http://www.faa.gov/documentLibrary/media/Order/8100.15A.pdf>,

holder,” the organization to which the FAA delegates authority. The “ODA unit” is the group of individuals within the ODA holder who perform the authorized functions. As the ODA holder, Boeing is responsible for administering the ODA unit and ensuring that the applicable ODA program requirements are met. Boeing is an ODA holder under the Type Certificate, Production Certificate, and Major Repair, Alteration, and Airworthiness programs. As a Type Certificate ODA holder, Boeing “may manage and make findings for type certificate programs.”⁵

6. In my capacity as an AR, I held delegated authority as part of the DOA program within Boeing from 2004 through 2009, and I have held delegated authority as a member of the ODA unit within Boeing from 2009 to the present.

AIMS Certification

7. Boeing delivered 777-200ER serial number 29171 (the “Airplane”) to Asiana Airlines on March 7, 2006. The Airplane Information Management System (“AIMS-2”) delivered on the Airplane was manufactured by Honeywell International Inc. (“Honeywell”). The AIMS-2 provides flight and maintenance crews pertinent information concerning the overall condition of the airplane, its maintenance requirements, and its key operating functions. One of the AIMS-2 functional areas is Thrust Management, which includes the autothrottle. My October 16, 2013 declaration described the certification process for the AIMS-2 hardware delivered on the Airplane.

8. The AIMS-2 also includes software that must be certified as complying with the Federal Aviation Regulations. AIMS-2 software versions are known as “Blockpoints.” From the original AIMS-2 certification in 2003 through 2012, seven new Blockpoints were certified. The version known as Blockpoint 2005 was delivered on the Airplane.

9. Certification of Blockpoint 2005 involved several steps. First, Boeing sent a Certification Plan to the FAA. The Certification Plan described the Blockpoint 2005 certification project. The FAA concurred with the Certification Plan.

⁵ FAA Order 8100.15A at 2-4(a).

10. For the AIMS-2 Software development, Boeing utilizes FAA Advisory Circular AC20-115B which specifies an applicant (Boeing) may use the considerations outlined in RTCA/DO-178B "Software Considerations in Airborne systems and Equipment Certification" as a means, but not the only means, to secure FAA approval of the digital computer software. RTCA/DO-178B is the document used by the FAA to establish the design and test requirements for the reliability of aircraft software. The specific details of the relevant software development and verification activities as well as relevant roles and responsibilities, are captured in the Plan for Software Aspects of Certification ("PSAC") for the software blockpoint.

11. The AIMS-2 software was developed and verified by Honeywell per the guidelines as stated in the PSAC for the production of software for airborne systems and equipment that performs its intended function with a level of confidence in safety that complies with the airworthiness requirements. The RTCA/DO-178B guidelines for the software life cycle processes, activities and design considerations required to achieve the objectives and evidence that all objectives had been satisfied were provided for the Blockpoint 2005 AIMS software certification, as documented in the AIMS Certification Summary.

12. Boeing conducted additional flight, ground and lab validation testing and analysis beyond the RTCA/DO-178B compliance as described in the Certification Plan. Boeing participates in new functional development by writing a suite of requirements for how the AIMS-2 software should behave. Those requirements were then decomposed per the stated PSAC process with the Supplier, and Boeing reviewed the decomposition to ensure it met the design intent. Boeing also performed validation testing on the airplane and in the lab for modified and new functionality and participated in analysis of the software code and processes, and supported the Software Stage of Involvement Audits performed by the FAA per FAA Order 8110.49 Chapter 2. The data from the testing and analysis performed by Boeing was described in the Certification Summary.

13. Based on the means of compliance specified in the Certification plan, and subsequent accomplishment of the plan activities as documented in the Certification Summary, I

determined in my capacity as an AR acting as part of the DOA system within Boeing, that Blockpoint 2005 complied with the applicable Federal Aviation Regulations, including 14 C.F.R. §§ 25.1301(a)-(d), 25.1309(a)-(d), (g). Eleven other ARs, including the AR for the Thrust Management functional area, determined for their designated areas that Blockpoint 2005 complied with the applicable Federal Aviation Regulations.

14. Between October 31, 2005 and November 4, 2005, the eleven other ARs and I each signed a Form 8100-9, Statement of Compliance with the Airworthiness Standards, with respect to Blockpoint 2005. The Forms 8100-9 say the purpose of the data submitted to the FAA is "DOA recommend approval of compliance data for: 777 AIMS-2 Blockpoint 2005 Software Update." In signing the Forms 8100-9 we recommended, in our capacities as ARs acting as part of the DOA system within Boeing, that the FAA approve the Certification Summary and find the Blockpoint 2005 software complied with the standards in the Federal Aviation Regulations and was airworthy.

15. The FAA subsequently approved the system Certification Summary and made the finding of compliance.

I declare under penalty of perjury that the foregoing is true and correct.

Executed on November 12, 2013.


Anngelique Bowen